



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,893	10/02/2003	Robert C. Chang	SANDP040	2329
10027	7590	01/12/2007	EXAMINER	
ANDERSON, LEVINE & LINTEL L.L.P.			TSAI, SHENG JEN	
14785 PRESTON ROAD			ART UNIT	PAPER NUMBER
SUITE 650			2186	
DALLAS, TX 75254				

MAIL DATE	DELIVERY MODE
01/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	Application No.	Applicant(s)
	10/678,893	CHANG ET AL.
	Examiner	Art Unit
	Sheng-Jen Tsai	2186

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 19 December 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) The period for reply expires 3 months from the mailing date of the final rejection.
- b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because

- (a) They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) They raise the issue of new matter (see NOTE below);
- (c) They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. Applicant's reply has overcome the following rejection(s): _____.

6. Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. For purposes of appeal, the proposed amendment(s): a) will not be entered, or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 3,4,6-11,13,16-21,23,26-28 and 30-34.

Claim(s) withdrawn from consideration: 1,2,5,12,14,15,22,24,25,29 and 35-45.

AFFIDAVIT OR OTHER EVIDENCE

8. The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see below.

12. Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____

13. Other: _____.

Applicants' remarks have been carefully and fully considered, with the Examiner's responses set forth below.

(1) As for claim 4, Applicants contend that neither of the references teaches the use of an indicator of reclaimed blocks as an indicator according to which the error detection encoding algorithms is selected. The Examiner disagrees with this assessment for the following reasons:

First, Yada teaches that data is grouped according to its rewriting/reuse/reclaimed frequency and stored at different sections of the memory accordingly [Frequently-rewritten parameter data is stored in the specified partial storage area, and program data or the like low in rewriting frequency are stored in other storage areas (paragraph 0029)].

Second, Yada teaches (Bassett teaches this as well) that different ECC algorithms are applied to different sections of the memory [The present inventors have paid attention to the difference between the individual memory cell characteristics and thereby have found out utility in that the number of bits of ECC codes corresponding to the number of data bits can be determined according to the characteristic of the flash memory. In short, the present inventors have found out utility in that the selection of an ECC method matched with a device characteristic of each memory cell is enabled or allowed to obtain a predetermined number of rewrite assurances, and overhead of each ECC code for the data is reduced, whereby the use efficiency of the storage area is set to the maximum (paragraph 0012)].

Thus, Yada clearly teaches the particular limitation of "use of an indicator of reclaimed blocks as an indicator according to which the error detection encoding algorithms is selected."

Therefore, the Examiner's position regarding the merit of patentability of claim 4, and all those claims depending from it, remain the same as stated in the previous Office Action.

(2) As for claim 6, Applicants contend that there is no suggestion to modify the teachings in such a manner to reach claim 6, which recites "the indicator having a value indicative of a number of times the first block has been erased." The Examiner disagrees with this assessment for the following reasons:

First, the difference between claim 4 and claim 6 is that the indicator having a value indicative of a block is a reclaimed block in claim 4, while the indicator having a value indicative of a number of times the first block has been erased in claim 6.

Second, it is well known in the art that in order for a flash memory block (Yada's invention is directed toward flash memory) to be rewritten/reprogrammed/reclaimed/reused it has to be erased first. In other words, there is a one-to-one correspondence between the number of erasing and the number of rewriting of a flash block.

Third, it has been established in Section (1) of this Advisory Action that the references indeed teach the limitation of "use of an indicator of reclaimed blocks as an indicator according to which the error detection encoding algorithms is selected." Thus, by the same reasoning, the references also teach the limitation of "use of an indicator having a value indicative of a number of times the first block has been erased as an indicator according to which the error detection encoding algorithms is selected."

Therefore, the Examiner's position regarding the merit of patentability of claim 6, and all those claims depending from it, remain the same as stated in the previous Office Action.

(3) As for claims 16, 21 and 33, Applicants contend that they are allowable based on the same reasons why claims 4 and 6 should be allowable. However, Examiner has responded in sections (1) and (2) as to why that is not the case.

Therefore, the Examiner's position regarding the merit of patentability of claims 16, 21 and 33, and all those claims depending from it, remain the same as stated in the previous Office Action.



PIERRE BATAILLE
PRIMARY EXAMINER

115107